

EXHIBIT I



Career Certifications & Paths

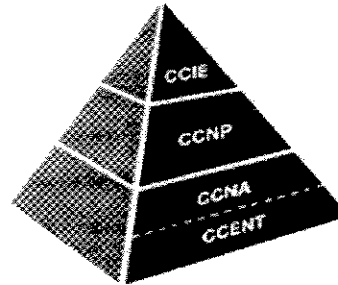
CCNP

CCNP Certification

CCNP certification validates a network professional's ability to install, configure and troubleshoot converged local and wide area networks with 100 to 500 or more nodes. Network Professionals who achieve the CCNP have demonstrated the knowledge and skills required to manage the routers and switches that form the network core, as well as edge applications that integrate voice, wireless, and security into the network.

Partners: Log in for Partner E-Learning Connection (PEC) learning map

- [CCNP Track I Learning Map](#)
- [CCNP Track II Learning Map](#)



CCNP Instant Answers

CCNP Prerequisites

Valid CCNA certification

CCNP Exams & Recommended Training

Required Exam(s)	Recommended Training
642-901 BSCI	Building Scalable Cisco Internetworks (BSCI)
642-812 BCMSN	Building Cisco Multilayer Switched Networks (BCMSN)
642-825 ISCW	Implementing Secure Converged Wide Area Networks (ISCW)
642-845 ONT	Optimizing Converged Cisco Networks (ONT)

OR

Required Exam(s)	Recommended Training
642-892 Composite	Building Scalable Cisco Internetworks (BSCI) Building Cisco Multilayer Switched Networks (BCMSN)
642-825 ISCW	Implementing Secure Converged Wide Area Networks (ISCW)
642-845 ONT	Optimizing Converged Cisco Networks (ONT)

Additional Training

The CCNP Prep Center includes practice questions, e-learning modules, tips from CCNP professionals, expert advice, and other CCNP resources to help students preparing for CCNP certification exams.

CCNP Recertification

CCNP certifications are valid for three years. To recertify, pass any 642 exam that is part of the professional level curriculum after 01/01/06, or pass a current CCIE written exam.

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Building Scalable Cisco Internetworks (BSCI) v3.0

**Associated
Certifications:** CCDP / CCNP

Duration: 5 days, Virtual Classroom
hours, Web Based Training
5 days, Classroom
5 days, Remote Labs & Simulations

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[All Delivery Types](#)

[Course Content](#)
[Prerequisites](#)

[Course Outline](#)
[Who Should Attend](#)

Prerequisites

- CCNA (INTRO and ICNDv2.2 or newer)

Course Content

CCNP routing protocol training for professional-level skills in building Enterprise level router networks and applications. Integrates Advanced Technologies.

Course Objective

In this course, students will learn how to create an efficient and expandable enterprise network by installing, configuring, monitoring, and troubleshooting network infrastructure equipment (especially routers such as Cisco ISRs) according to the Campus Infrastructure module in the Enterprise Composite Network model. The routed network includes the most commonly used and emerging IP routing protocols.

Course Outline

Course Introduction to Routing in an Enterprise Networks

Configuring EIGRP

Configuring OSPF

The IS-IS Protocol

Manipulating Routing Updates

Implementing BGP

Implementing Multicast

Implementing the Basics of IPv6

Who Should Attend

- Channel Partner / Reseller
- Customer
- Employee

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Building Cisco Multilayer Switched Networks (BCMSN) v3.0

Associated Certifications: CCDP / CCNP

Duration: 5 days, Virtual Classroom
hours, Web Based Training
5 days, Classroom
5 days, Remote Labs & Simulations

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[Remote Labs & Simulations only](#)
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[Course Content](#) [Course Outline](#)
[Prerequisites](#) [Who Should Attend](#)

Prerequisites

- CCNA (INTRO and ICNDv2.2 or newer)

Course Content

CCNP Training for advance skills in building Enterprise level switched networks and applications. Integrate Advance Technologies such as VoIP and Wireless.

Course Objective

In this course, students will learn how to create an efficient and expandable enterprise network by installing, configuring, monitoring, and troubleshooting network infrastructure equipment (especially Catalyst Multilayer Switches) according to the Campus Infrastructure module in the Enterprise Composite Network model. The campus switched network includes converged IP data, IPC (voice), and Airspace WLAN (Wireless) connectivity.

Course Outline

Introduction to Campus Networks
Defining Virtual Networks (VLANs)
Implementing Spanning Tree
Implementing InterVLAN Routing
Implement High Availability in a Campus Environment
Wireless Client Access
Minimizing Service Loss and Data Theft in a Campus Network
Configuring Campus Switches to Support Voice

Who Should Attend

- Channel Partner / Reseller
- Customer
- Employee

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Implementing Secure Converged Wide Area Networks (ISCW) v1.0

Associated Certifications: CCDP / CCNP

Duration: 5 days, Virtual Classroom
hours, Web Based Training
5 days, Classroom
5 days, Remote Labs & Simulations

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[All Delivery Types](#)

[Course Content](#) [Course Outline](#)
[Prerequisites](#) [Who Should Attend](#)

Prerequisites

- Introduction to Cisco Networking Technologies (INTRO)
- Interconnecting Cisco Network Devices (ICND)

Course Content

Learners will be able to secure and expand the reach of their enterprise network to teleworkers and remote sites. Focus is on securing remote access and VPN client configuration.

Course Objectives

After completing this course the student should be able to:

- Explain the Cisco hierarchical network model as it pertains to the WAN Describe and implement teleworker configuration and access
- Implement and verify frame mode MPLS
- Describe and configure a site-to-site IPSEC VPN
- Describe and configure Cisco EZVPN
- Explain the strategies used to mitigate network attacks
- Describe and configure Cisco device hardening
- Describe and configure IOS firewall features

Course Outline

Describe Network Requirements

Connect Teleworks

Implement Frame Mode MPLS

IPsec VPNs

Cisco Device Hardening

Cisco IOS Threat Defense Features

Who Should Attend

- Channel Partner / Reseller
- Customer
- Employee

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Optimizing Converged Cisco Networks (ONT) v1.0

**Associated
Certifications:** CCDP / CCNP

Duration: 5 days, Virtual Classroom
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5 days, Classroom
5 days, Remote Labs & Simulations

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[Course Content](#) [Course Outline](#)
[Prerequisites](#) [Who Should Attend](#)

Prerequisites

Students must be able to:

- Explain the fundamentals of Ethernet including CSMA / CD, port speed, port duplex, and 10Mbps to 1Gbps
- Complete the initial configuration of a switch.
- Basic Spanning Tree Protocol configuration
- Configure a switch with VLANs.
- Create basic interswitch connections.
- Troubleshoot a VLAN and VTP to the CCNA level
- Complete the initial configuration of a router.
- Fundamental security knowledge including the presence of hackers, viruses and other security threats
- Fundamental knowledge of IP Addressing including the format of IPv4 addresses, the concept of subnetting, and VLSM and CIDR as well as static and default routing
- Basic NAT / PAT
- Standard and Extended Access Lists
- Use client utilities including Telnet, IPCONFIG, Trace Route, Ping, FTP, TFTP, and Hyperterminal
- Basic IOS familiarity, including accessing the CLI on a Cisco device and specifically implementing the debug and show commands

Course Content

Training for skills in optimizing and providing effective QOS techniques in converged networks operating voice, wireless and security applications.

Course Objectives

After completing this course the student should be able to:

- Explain the Cisco hierarchical network model as it pertains to an end-to-end enterprise network
- Describe specific requirements for implementing a VOIP network
- Describe the need to implement QoS and the methods for implementing QoS on a converged network using Cisco's

- routers and Catalyst Switches
- Explain the key IP QoS mechanisms used to implement the DiffServ QoS model
- Configure Auto QoS for Enterprise
- Describe and configure wireless security and basic wireless management

Course Outline

Describe Network Requirements

Describing Cisco VoIP Implementations

Introduction to IP QoS

Implementing the DiffServ QoS Model

Implementing AutoQoS

Wireless Security

Who Should Attend

- Channel Partner / Reseller
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- Employee

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Building Scalable Cisco Internetworks (BSCI) v3.0

Associated

Certifications: CCDP / CCNP

Duration: 5 days, Virtual Classroom
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5 days, Classroom
5 days, Remote Labs & Simulations

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[Remote Labs & Simulations only](#)
[All Delivery Types](#)

[Course Content](#)
[Prerequisites](#)

[Course Outline](#)
[Who Should Attend](#)

Prerequisites

- CCNA (INTRO and ICNDv2.2 or newer)

Course Content

CCNP routing protocol training for professional-level skills in building Enterprise level router networks and applications. Integrates Advanced Technologies.

Course Objective

In this course, students will learn how to create an efficient and expandable enterprise network by installing, configuring, monitoring, and troubleshooting network infrastructure equipment (especially routers such as Cisco ISRs) according to the Campus Infrastructure module in the Enterprise Composite Network model. The routed network includes the most commonly used and emerging IP routing protocols.

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Configuring OSPF

The IS-IS Protocol

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Building Cisco Multilayer Switched Networks (BCMSN) v3.0

**Associated
Certifications:** CCDP / CCNP

Duration: 5 days, Virtual Classroom
hours, Web Based Training
5 days, Classroom
5 days, Remote Labs & Simulations

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[Course Content](#)
[Prerequisites](#)

[Course Outline](#)
[Who Should Attend](#)

Prerequisites

- CCNA (INTRO and ICNDv2.2 or newer)

Course Content

CCNP Training for advance skills in building Enterprise level switched networks and applications. Integrate Advance Technologies such as VoIP and Wireless.

Course Objective

In this course, students will learn how to create an efficient and expandable enterprise network by installing, configuring, monitoring, and troubleshooting network infrastructure equipment (especially Catalyst Multilayer Switches) according to the Campus Infrastructure module in the Enterprise Composite Network model. The campus switched network includes converged IP data, IPC (voice), and Airspace WLAN (Wireless) connectivity.

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Implementing Secure Converged Wide Area Networks (ISCW) v1.0

Associated Certifications: CCDP / CCNP

Duration: 5 days, Virtual Classroom
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5 days, Classroom
5 days, Remote Labs & Simulations

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[Web Based Training only](#)
[Classroom only](#)
[Remote Labs & Simulations only](#)
[All Delivery Types](#)

[Course Content](#)
[Prerequisites](#)

[Course Outline](#)
[Who Should Attend](#)

Prerequisites

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Connect Teleworks

Implement Frame Mode MPLS

IPsec VPNs

Cisco Device Hardening

Cisco IOS Threat Defense Features

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Optimizing Converged Cisco Networks (ONT) v1.0

Associated

Certifications: CCDP / CCNP

Duration: 5 days, Virtual Classroom
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5 days, Remote Labs & Simulations

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[Classroom only](#)
[Remote Labs & Simulations only](#)
[All Delivery Types](#)

[Course Content](#)
[Prerequisites](#)

[Course Outline](#)
[Who Should Attend](#)

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